

Date: Thursday, 12/15/2005 3:55:35 PM  
User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
Job Number : 25250  
Estimate Number : 10390  
P.O. Number : N/A  
This Issue : 12/15/2005 S.O. No. : N/A  
Prsht Rev. : NC  
First Issue : N/A Type : MACHINED PARTS  
Previous Run : 25101  
Written By : SEE COMMENT BELOW  
Checked & Approved By : SEE COMMENT BELOW  
Comment : Est Rev: A New Issue 05-11-08 JLM

Drawing Name : BAR

Part Number : D3197041  
Drawing Number : D3197 REV A1  
Project Number : N/A  
Drawing Revision : A1  
Material : N/A  
Due Date : 1/10/2006

Qty: 20-30  
10 Um: Each

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M7075T73R1000 7075-T73 Round Bar 1" OD



Comment: Qty.: 2.5410 f(s)/Unit Total: 25.4100 f(s)  
Material: 7075-T73 (QQ-A-200/11) or (QQ-A-225/9) 1" OD  
(M7075T73R1.000)  
Identify for D3197-1  
Batch: M19431 (58.25") M18600 (58.25")

M8 06/01/27

2.0 BAND SAW BAND SAW



Comment: BAND SAW

Cut blanks: 29.125" long

M8 06/01/27 22

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1  
1-Face ends to length per dwg D3197

2-Machine D3197-1 as per Folio FA340 and Dwg D3197

3-Deburr

JL/SD 06.01.28 28

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

JL/SD 06.01.28 28

5.0 LATHE CONV. CONVENTIONAL LATHE



Comment: CONVENTIONAL LATHE  
Chamfer as per Dwg D3197

J.F. 06/01/28 28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 060214

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06-01-31	3	-1 part the flat is not at the right place - part was turned wrong (flipped) way. FLAT FOR LOGO IS 0.460" WIDE.		Part is acceptable Margin of Sfty = 0.15 OK UP 06-02-07	J.L. 06-01-31			06-02-07

NOTE: Date & initial all entries

Date: Thursday, 12/15/2005 3:55:36 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BAR

Job Number: 25250

Part Number: D3197041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

BG 0602.07

12/15/05

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

01 06 02 08

12/15/05

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

G.M. M

06 02 09

22

10.0

D26905

Lanyard ass'y ;



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 D2690-5

Lanyard

B25104 / 25259

11.0

D32421

Tag



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3197-1

Bar

B25250

12.0

AN960JD10

Washer



Comment: Qty.: 12.0000 Each(s)/Unit Total : 120.0000 Each(s)

Pick:

Qty Part Number

Description Batch

12 AN960JD10

Washer

M19413

② D3242-1  
06.02.09

TAG.

B25105 X13  
B25400 X 31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

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## Process Sheet

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Drawing Name: BAR

Job Number: 25250

Part Number: D3197041

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

DARS004

Pip Pin



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 DARS-004

Pip Pin

B19520x22, B19453x20, B19507x2

14.0

MS21042L3

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 MS21042L3

Nut (or -3)

M18180

15.0

MS27039124

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 MS27039-1-24 Screw

M19391

DL 06/02/13

22

16.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
Assemble D3197-041 as per Dwg D3197

DL 06/02/13

22

17.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-02-13

22

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

5137

06/02/13

22

19.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL  
Inspection Level 21

06/02/14

22

06-02-14

22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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**NOTE:** Date & initial all entries



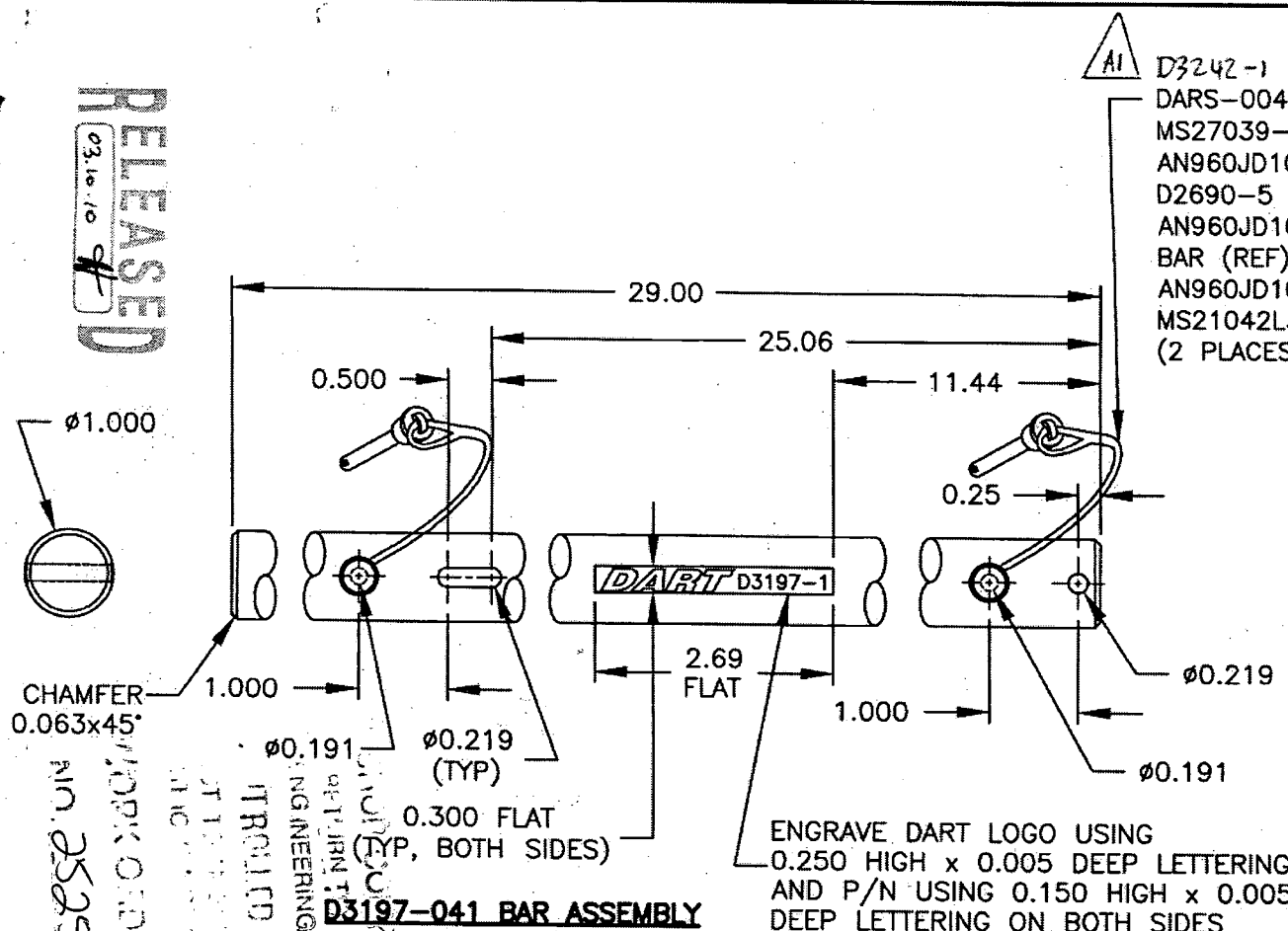


**DART**



DESIGN	DRAWN BY	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA	REV. A
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3197	SHEET 1 OF 1
DATE 03.07.01	TITLE BAR	SCALE 1:1	
A	03.07.01	NEW ISSUE	
A1	04.01.12	ADD D3242-1 TAG	

- D3242-1 TAG (1)  
 DARS-004 PIP PIN (1)  
 MS27039-1-24 BOLT (1)  
 AN960JD10 WASHER (1)  
 D2690-5 LANYARD (1)  
 AN960JD10 WASHER (1)  
 BAR (REF)  
 AN960JD10 WASHER (1)  
 MS21042L3 NUT (1)  
 (2 PLACES)



# D3197-1 BAR

- 1) MATERIAL: 7075-T73 ROUND BAR (QQ-A-200/11 or QQ-A-225/9)  $\phi$ 1.000 O.D.  
(REF DART SPEC. M7075T73R1.000)
- 2) POSSIBLE SUPPLIER FOR DARS-004 PIP PIN: REID TOOL SUPPLY.  
IT IS ACCEPTABLE TO REPLACE WITH ANY STAINLESS STEEL DOUBLE-ACTING QUICK-RELEASE PIN WITH A  $\phi$ 0.188 DIAMETER PIN, 1.8"-2.0" GRIP LENGTH, MIN. OF 200 lbs PULL-OUT STRENGTH, AND MIN. OF 5150 lbs DOUBLE SHEAR.
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) FOR TOOLING, IT IS ACCEPTABLE TO HAVE A 0.06 DEEP x 60° CENTER MARK AT EITHER END OF THE BAR

RELEASED  
03.10.10